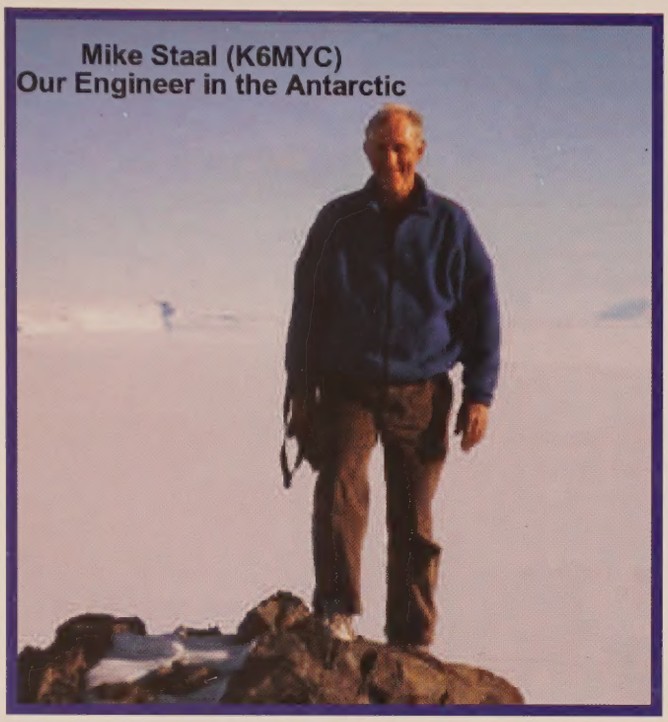
# ANTENNAS

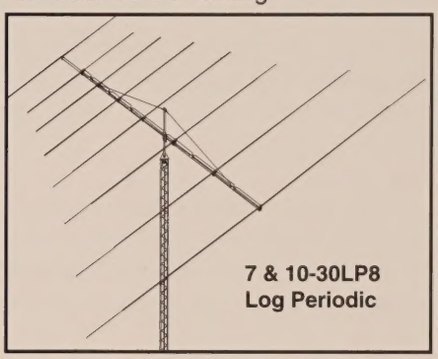
## Positioners & Accessories

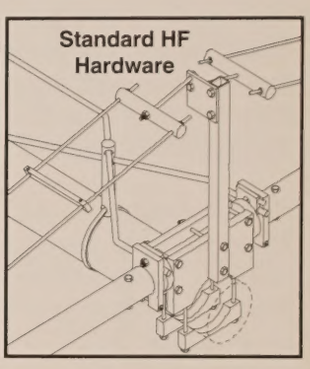



# HIGH PERFORMANCE

## HF ANTENNAS 3 TO 30 MHz

All $M^2$ HF Antennas use machined aluminum element to boom mounts and feature stainless steel hardware through the antenna. All antennas include a balun that is 5kW PEP rated. Log Periodics (our choice for multiband directional antennas) use a 4:1 broadband ferrite balun and the Mono-banders all use a broadband teflon coax coaxial 1:1 balun (No ferrite). All antennas are carefully designed using computer modeling and optimization. Our Designer, Mike Staal (K6MYC) has been designing High Performance antennas commercially since 1971 when he formed KLM. Our antennas feature the highest gain possbile, consistant with other important parameters like F/B & VSWR bandwidth. Some of our larger antennas are sold Factory Direct and are listed at the back of the catalog.



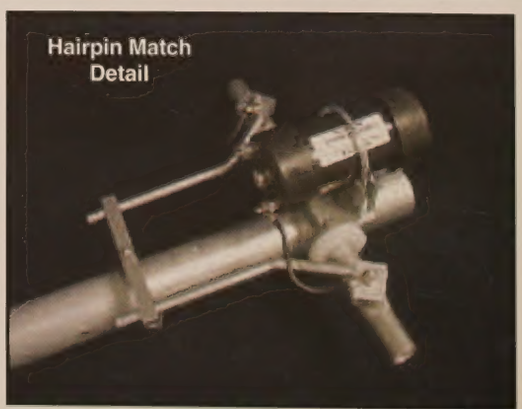




| MODEL | 7 & 10-30LP8 | 10-30LP8 | 17-30LP7DX | 40M1LDX | 20M4DX | 17M5DX | 17M3DX | 15M4DX | 12M4DX | 10M4DX |
|---|---|---|---|---|---|---|---|---|---|---|
| Freq. MHz | 7 & 10-30 | 10-30 | 17-30 | 6.9-10 | 14.0-14.350 | 18.08-18.18 | 18-18.3 | 21.0-21.450 | 24.89-24.99 | 28-29 |
| Gain | 6 dBd | 6 dBd | 6.5 dBd | NA | 7.4 dBd | 8.6 dBd | 6.3 dBd | 8.5 dBd | 8.6 dBd | 8.7 dBd |
| Front-Back | 3 db/15 dB | 15 dB | 20 dB | NA | 24 dB | 24 dB | 25 dB | 25 dB | 20 dB | 25 dB |
| Beamwidth | E=65 | E=65 | E=65 | E=70 | E=50/H=75 | E=48/H=75 | E=60/H=90 | E=53/H=60 | E=48/H=58 | E=53/H=60 |
| VSWR | 1.5:1 Typ. | 1.5:1 Typ. | 1.5:1 Typ. | 1.2:1 Typ. | 1.2:1 Res. | 1.2:1 Typ. | 1:2:1 Max. | 1.2:1 Max. | 1.2:1 Typ. | 1.4:1 Max. |
| Boom Length/Dia. | 29' 7" / 3" | 29' 7" / 3" | 23' 8" / 2" | 3" | 34' / 2 1/2" | 36' / 2.5" | 18' / 2" | 33'8"/2.5-2 | 27' / 2" | 23' / 2" |
| Element Max | 46' | 46' | 28' 8" | 46' | 35' | 27' 10" | 27' 10" | 23' 8" | 20' 5" | 17' 4" |
| Turn Radius | 28' | 28' | 19' | 23' | 25' | 24' 5" | 16' 6" | 21' | 16' 8" | 14' |
| Wind Area | 13 Sq Ft. | 12.5 Sq Ft. | 6.5 Sq Ft. | 3 Sq Ft. | 6.9 Sq Ft. | 7.25 Sq Ft. | 4 Sq Ft. | 6.1 Sq Ft. | 4.4 Sq Ft. | 3.7 Sq Ft. |
| Wind Survival | 100 MPH | 100 MPH | 100 MPH | 100 MPH | 85 MPH | 100 MPH | 100 MPH | 100 MPH | 100 MPH | 100 MPH |
| Weight/Ship | 86 lbs/TRK | 83 lbs/TRK | 45 lbs/UPS | 55 lbs/UPS | 35 lbs/UPS | 38 lbs/UPS | 30 lbs/UPS | 32 lbs/UPS | 28 lbs/UPS | 23 lbs/UPS |

## OR2800P AZ ROTATOR

World Class Azimuth Rotator, built for the serious Ham in mind ! This Monster will turn up to 35 Sq. Feet of wind area with ease. Control Head has 10 Programmable presets and RS232 Computer interface.

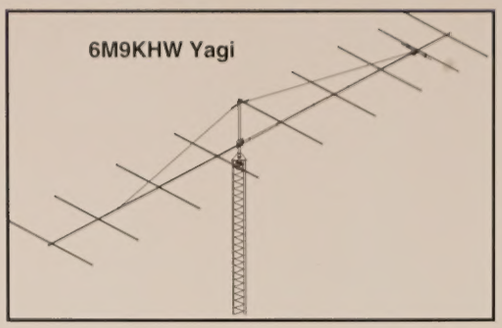
***SEE PAGE 5 FOR MORE DETAILS.***



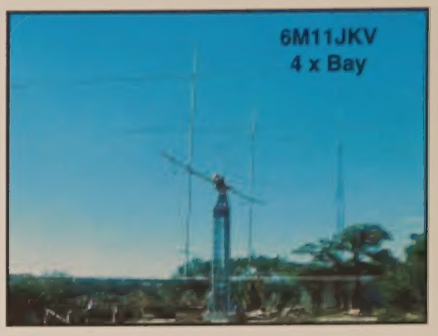
# 6 Meter Antennas

**M2 Owns 6 Meters !**

The 6M7JHV is a mid-sized 7 element antenna designed originally for Dave Batcho, N5JHV. The JHV's excellent gain is coupled with a very clean pattern for reducing local noise, making it ideal for long-haul terrestrial and EME communications. An outstanding performer by itself, the JHV also produces 17 dBd in a 4-bay array.



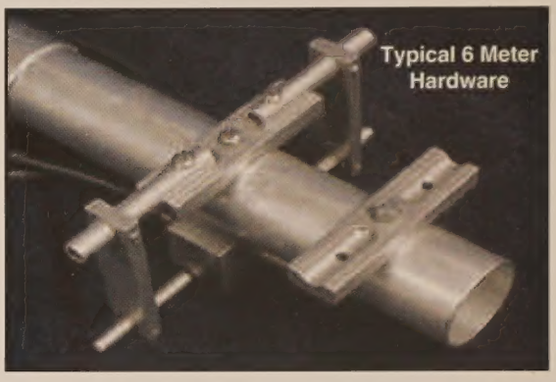

The 6M9KHW is a full size 9 element antenna designed for Ray Grenier, K9KHW. We employed the latest computer optimization to achieve the most gain possible with the fewest elements. The pattern is clean & windload is low. Best of all its Ups-able to save you money. We have designed the 6M9KHW to fill the shoes of the world famous 6M2.5WL.



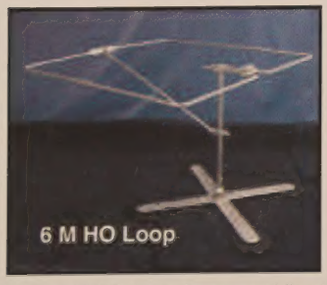

This premier yagi was produced for Jim Treybig, W6JKV for use on his new 60 acre ranch outside Austin Texas. This rugged performer is unmatched in the industry and clearly is the king of the 6 meter band. The free space gain is 14 dBd and when horizon ground gain of 5+dB is added in, moon echoes are not only possible but probable with 400 watts of power.

The world is changing and M2 is right there in the game. To offset the rising freight costs, we are designing our large,high performance antennas for shipment by UPS. This means lower costs to you with less damage potential. We are also streamlining our designs, reducing weight while still maintaining our 100 MPH survival ratings.

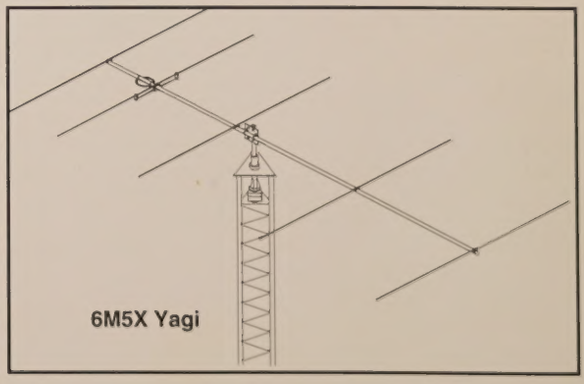
We know only to well how increased antenna restrictions limit your system performance. We have continued to look for better ways to get more for less and our H.O. Loop series is a prime example of great performance in a small package. We listen to your needs and we accommodate whenever possible !




| MODEL | 6M Ho Loop | 6M3 | 6M5X | 6M7 | 6M7JHV | 6M2WLC | 6M9KHW | 6M11JKV |
|---|---|---|---|---|---|---|---|---|
| Freq. MHz | 50-50.3 | 50-50.6 or 51-54 | 50-50.5 or 51-54 | 49.5-50.5 | 50-50.4 | 49.7-50.5 | 50.0-50.4 | 50-50.4 |
| Gain | 4.4 dBd | 6.4 dBd | 9.4 dBd | 10.5 dBd | 10.9 dBd | 11.9 dBd | 12.7 dBd | 14.0 dBd |
| Front-Back | NA | 20 dB | 21 dB | 23 dB | 25 dB | 25 dB | 23 dB | 20 dB |
| Beamwidth | Omni / Horz Pol | E=65 / H=80 | E=42 / H=52 | E=42 / H=50 | E=40 / H=42 | E=36 / H=39 | E=34 / H=39 | E=26 / H=30 |
| VSWR | 1.2:1 Typ. | 1.1 @ 50.175 | 1.1 @ 50.175 | 1.2:1 @ 50.1 | 1.2:1 Typ. | 1.2:1 Typ. | 1.2:1 Typ. | 1.2:1 Typ. |
| Boom Length/Dia. | Size 29.5" Sq. | 6' 9" / 1 1/2" | 18' / 1 1/2" | 26' 9" / 2" | 30' 8" / 1 1/2" | 39' 6" / 2 & 2 1/2" | 49'4"/2"-1/2" | 69' / 3" |
| Elements | 1 (loop) | 3 | 5 | 7 | 7 | 9 | 9 | 11 |
| Wind Area | .01 Sq Ft. | 1.2 Sq Ft. | 2.2 Sq Ft. | 3 Sq Ft. | 2.5 Sq Ft. | 5 Sq Ft. | 5.9 Sq Ft. | 10.7 Sq Ft. |
| Wind Survival | 100 MPH | 100 MPH | 100 MPH | 100 MPH | 85 MPH | 100 MPH | 100 MPH | 100 MPH |
| Weight/Ship | 2 lbs / UPS | 6 lbs / UPS | 9 lbs / UPS | 20 lbs / UPS | 17 lbs/ UPS | 31 lbs / TRK | 35 lbs / UPS | 83 lbs / TRK |



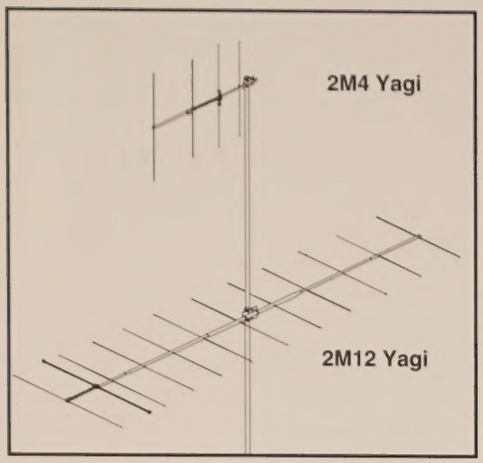

The New 6M HO Loop is an omnidirectionally, horizontally polarized antenna perfect for any mobile or base station. 200 mile contacts are not uncommon for this reduced size loop.



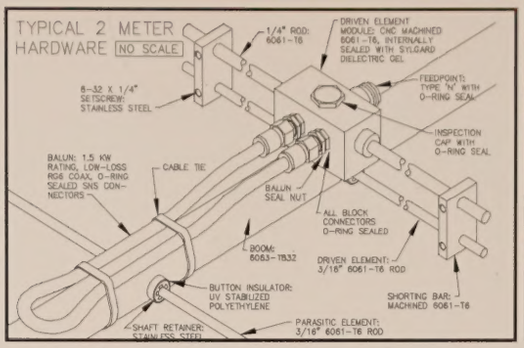


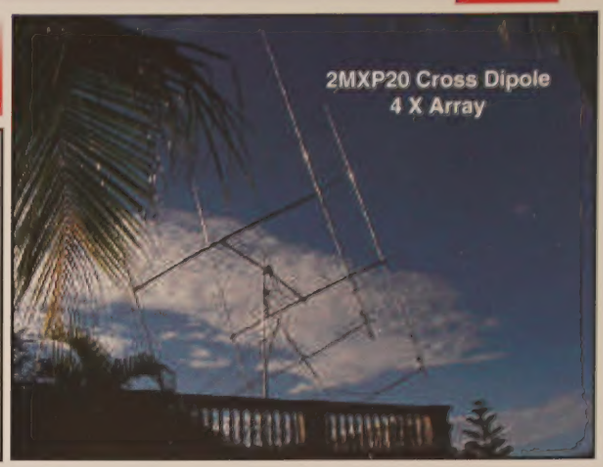

**CALL US ANY TIME BETWEEN 8:00AM-4:00PM PST (559) 432-8873**

# 2 Meter Antennas




## NEW TECHNOLOGY


TYPICAL 2 METER HARDWARE NO SCALE
1/4" ROD: 6061-T6
DRIVEN ELEMENT MODULE: CNC MACHINED 6061-T6, INTERNALLY SEALED WITH SYLGARD DIELECTRIC GEL
FEEDPOINT: TYPE 'N' WITH O-RING SEAL
6-32 X 1/4" SETSCREW: STAINLESS STEEL
INSPECTION CAP WITH O-RING SEAL
BALUN: 1.5 KW RATING, LOW-LOSS RG6 COAX, O-RING SEALED SNS CONNECTORS
CABLE TIE
BALUN SEAL NUT
ALL BLOCK CONNECTORS O-RING SEALED
BOOM: 6063-T832
DRIVEN ELEMENT: 3/16" 6061-T6 ROD
BUTTON INSULATOR: UV STABILIZED POLYETHYLENE
SHORTING BAR: MACHINED 6061-T6
SHAFT RETAINER: STAINLESS STEEL
PARASITIC ELEMENT: 3/16" 6061-T6 ROD




We've combined the best new computer optimization programs and decades of VHF antenna design experience to maximize the performance of every 2 meter yagi. Gain, beamwidth and F/B are tailored, model by model, to enhance your applications. The heart of these antennas is the unique driven element module shown above. Originally designed for maritime ATS satellite systems, it proved so successful at matching, power handling and weather resistance that it is now in use on all our 2 meter yagis.

The pictures should tell you about our rugged, water proof designs. We continue to offer our popular standards like the 2M5WL. At the same time we push the state of the art with antennas like the versatile 2MXP20 building block. Polarity diversity is the wave of the future for EME but it also can be a great advantage for satellite and terrestrial communications. Throughout our line we strive to be "Leading Edge."

| MODEL | 2M4 | 2M7 | 2M9FM | 2M9SSB | 2M12 | 2M5WL | 2M18XXX | 2M8WLHD | 2M5-440XP |
|---|---|---|---|---|---|---|---|---|---|
| Freq. MHz | 144-148 | 144-148 | 145-148 | 144-146 | 144-148 | 144-148 | 144-146 | 144-144.7 | 2M & 440 |
| Gain | 7.5 dBd | 10.3 dBd | 12.0 dBd | 12.0 dBd | 12.8 dBd | 14.8 dBd | 15.3 dBd | 17.0 dBd | 9 / 12 dBd |
| Front-Back | 20 dB | 20 dB | 24 dB | 24 dB | 25 dB | 22 dB | 22 dB | 24 dB | 12/25 dB |
| Beamwidth | E=54 / H=74 | E=46 / H=54 | E=35 / H=40 | E=35 / H=40 | E=32 / H=36 | E=26 / H=29 | E=25 / H=29 | E=20 / H=21 | Cross Pol. |
| VSWR | 1.5:1 Max. | 1.3:1 Typ. | 1.4:1 Max. | 1.4:1 Max. | 1.2:1 Typ. | 1.2:1 Typ. | 1.2:1 Typ. | 1.2:1 Typ. | 1.3:1 Max. |
| Boom Length/Dia. | 4' / 1" | 8' 10" / 1" | 14'6" / 1"-3/4" | 14'6" / 1"-3/4" | 19'6" / 1 1/2" | 33'/ 1-1/2"-3/4" | 36'3"/1-1/2"-3/4" | 55'/ 2.5"-1.5" | 5'8" / 1" |
| Elements/T.Radius | 4 / 4' | 7 / 4' 6" | 9 / 8' | 9 / 8' | 12 / 10' 6" | 17 / 18' 9" | 18 / 19' 6" | 21 / 29' | 5 / 10 |
| Wind Area | .5 Sq Ft. | .74 Sq Ft. | 1.2 Sq Ft. | 1.2 Sq Ft. | 1.5 Sq Ft. | 2.7 Sq Ft. | 2.9 Sq Ft. | 5.5 Sq Ft. | 1.0 Sq ft. |
| Wind Survival | 100 MPH | 100 MPH | 100 MPH | 100 MPH | 100 MPH | 100 MPH | 100 MPH | 100 MPH | 100 MPH |
| Weight/Ship | 3 lbs / UPS | 4 lbs / UPS | 6 lbs / UPS | 6 lbs / UPS | 8 lbs / UPS | 12 lbs / UPS | 14 lbs / UPS | 38 lbs / UPS | 4 lbs / UPS |

The New HO Loop from M2 provides an omnidirectional, horizontally polarized signal ideal for mobile and base operations. Size - 11.25" square.

The EB-144 offers smooth omnidirectional horizontal polarity at the horizon. Perfect for satellite or SSB. With optional radial kit. (RK-2M)

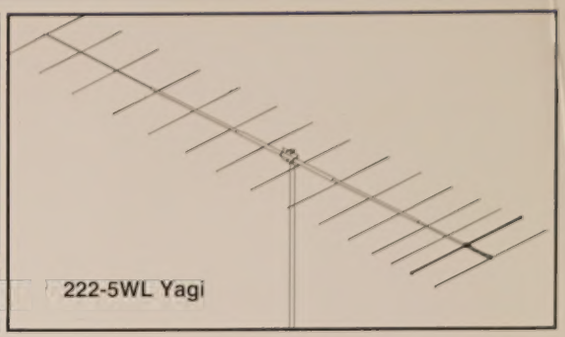
| MODEL | 2MXP20 | 2MXP28 | 2MCP14 | 2MCP22 | 2M Ho Loop | EB-144 |
|---|---|---|---|---|---|---|
| Freq. MHz | 144-146 | 144-146 | 143-148 | 143-148 | 144-144.5 | 135-150 |
| Gain | 13.3 dBd | 15.1 dBd | 10.3 dBdc | 12.5 dBdc | 4.86 dBd | 6 db Hor/RHC |
| Front-Back | 20 dB Typ. | 24 dB Typ. | 20 dB Typ. | 25 dB Typ. | NA | NA |
| Beamwidth/Polarity | Cross Pol. | Cross Pol. | Circular Pol. | Circular Pol. | Omni, Hor. | Omni,Hor/RHC |
| VSWR | 1.2:1 Typ. | 1.4:1 Typ. | 1.3:1 Typ. | 1.4:1 Typ. | 1.2:1 Typ. | 1.5:1 Max. |
| Boom Length/Dia. | 21'6"/1-1/2-1" | 34'6"/1-3/4-1" | 10' 6"/ 1" | 18'6"/1-1/2-1" | NA | NA |
| Elements/T.Radius | 10H/10V / 12'2" | 14H/14V / 17' | 7H/7V / 6'4" | 11H/11V / 10' | 1 loop/11.25" | 34"Hx28"W |
| Wind Area | 1.9 Sq Ft. | 3.3 Sq Ft. | 1.1 Sq Ft. | 2.5 Sq Ft. | .05 Sq Ft. | .07 Sq Ft. |
| Wind Survival | 100 MPH | 100 MPH | 100 MPH | 100 MPH | 100 MPH | 100 MPH |
| Weight/Ship | 6 lbs / UPS | 16.5 lbs / UPS | 6 lbs / UPS | 12 lbs / UPS | 1 lbs / UPS | 2 lbs / UPS |

# M2 222MHz, 70CM, 902MHz, 23CM

902-10EZ Yagi

440-470-5W

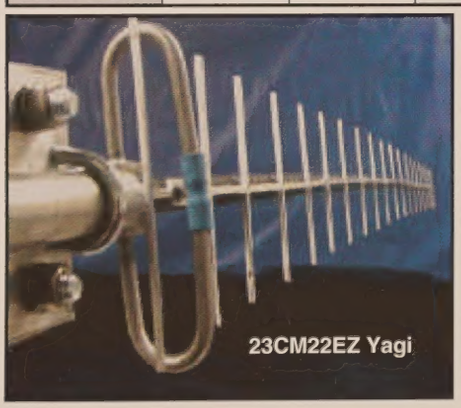
222 HO Loop

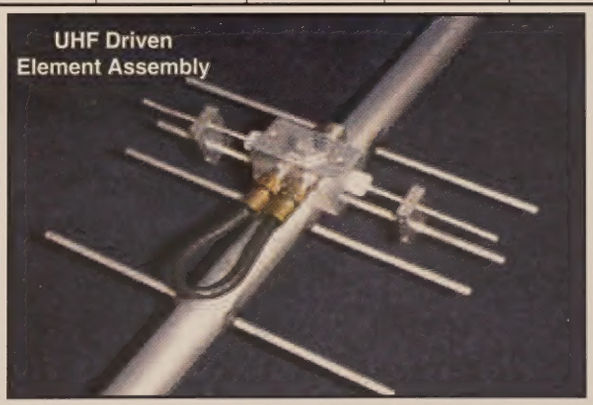

222-5WL Yagi

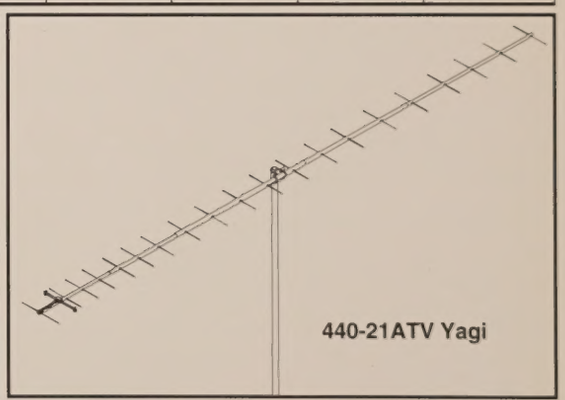
We have always offered performance and we have held that standard as our line grew. We continue to expand our line with innovative, longer lasting, trouble free antennas. In some models we bridge from amateur to commercial notably with our 440-470-5W (welded) and 902-6W (welded). You have to look long and hard to find this much high performance variety...check it out !

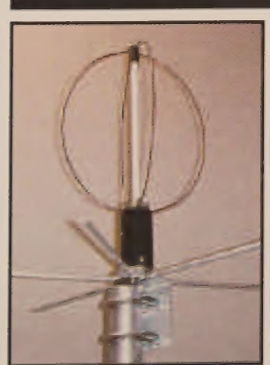
All of our UHF yagis feature balun and feed connectors that are O-ring sealed to a CNC machine block. Internal connections are encapsulated in a space-age silicone gel with nearly 4 times the dielectric strength of air. The type "N" connector features a beryllium copper, gold-plated center pin.

| MODEL | 222-7EZ | 222-10EZ | 222-5WL | 222-7WL | 222 HO Loop | 440-470-5W | 420-450-11 | 440-18 | 440-21ATV | 432-9WL | 432-13WLA |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Freq. MHz | 220-226 | 222-226 | 222-226 | 222-226 | 220-224 | 440-470 | 420-450 | 420-453 | 420-440 | 420-440 | 430-434 |
| Gain | 9.8 dBd | 12 dBd | 15.2 dBd | 16.4 dBd | 4.75 dBd | 7.8 dBd | 11.3 dBd | 14.5 dBd | 15.9 dBd | 17.3 dBd | 18.6 dBd |
| Front-Back | 22 dB | 23 dB | 21 dB | 25 dB | NA | 20 dB | 20 dB | 23 dB | 23 dB | 24 dB | 22 dB |
| Beamwidth | E=46/H=52 | E=34/H=39 | E=26/H=28 | E=24/H=26 | OMNI | E=56/H=72 | E=34/H=43 | E=27/H=24 | E=22/H=24 | E=20/H=22 | E=16/H=18 |
| VSWR | 1.5:1 Max. | 1.2:1 Max. | 1.2:1 Typ. | 1.2:1 Typ. | 1.2:1 Typ. | 1.2:1 Typ. | 1.2:1 Typ. | 1.2:1 Typ. | 1.2:1 Typ. | 1.2:1 Typ. | 1.2:1 Max. |
| Boom Lgth/Dia | 5'8" / 1" | 9'9" / 1" | 23'3" / 1.5-1" | 32'5" / 1-1/2-1" | NA | 2'2" / 1-1/4" | 5' / 1" | 11'4" / 1" | 14'6" /1-3/4" | 21'/1-1/2-1" | 30'8"/1.5-1 |
| Elements | 7 | 10 | 15 | 23 | 2 (loops) | 5 | 11 | 18 | 21 | 28 | 38 |
| Wind Area | .5 Sq Ft. | .9 Sq Ft. | 1.5 Sq Ft. | 2.7 Sq Ft. | .01 Sq Ft. | .33 Sq Ft. | .58 Sq Ft. | .88 Sq Ft. | 1.25 Sq Ft. | 1.6 Sq Ft. | 2.5 Sq Ft. |
| Wind Survival | 100 MPH | 100 MPH | 100 MPH | 75 MPH | 100 MPH | 150 MPH | 100 MPH | 100 MPH | 100 MPH | 100 MPH | 100 MPH |
| Weight/Ship | 3 lbs / UPS | 4 lbs / UPS | 9 lbs / UPS | 11 lbs / UPS | 1 lbs / UPS | 3 lbs / UPS | 4 lbs / UPS | 5 lbs / UPS | 5 lbs / UPS | 8 lbs / UPS | 10 lbs / UPS |


23CM22EZ Yagi


UHF Driven Element Assembly


440-21ATV Yagi


EB-432 with RK-70CM

| MODEL | EB-432 | 436CP30 | 436CP42UG | 432 HO Loop | 902-6W | 902-10EZ | 902-18EZ | 23CM22EZ | 23CM35 |
|---|---|---|---|---|---|---|---|---|---|
| Freq. MHz | 420-450 | 430-440 | 430-438 | 430-436 | 900-930 | 900-928 | 900-928 | 1250-1300 | 1250-1300 |
| Gain | 4 dBv | 14.5 dBdc | 16.8 dBdc | 5 dBd | 10 dBd | 12.6 dBd | 14.8 dBd | 16.0 dBd | 18.4 dBd |
| Front-Back | <1 dB | 22 dB | 25 dB | NA | 20 dB | 23 dB | 25 dB | 26 dB | 28 dB |
| Beamwidth | OMNI,hor/cir | 30 Circular | 21 Circular | OMNI,HOR | E=44/H=54 | E=35/H=38 | E=27/H=30 | E=24 | E=17/H=18 |
| VSWR | 1.5:1 Max. | 1.4:1 Max. | 1.5:1 Max. | 1.2:1 Typ. | 1.2:1 Max. | 1.2:1 Max. | 1.2:1 Max | 1:1 | 1.2:1 Typ. |
| Boom Length | 9.5" Dia. | 9' 9" | 18' 10" | 4 3/8" Square | 2' / 3/4" | 3'5" / 1" | 5'4" / 1" | 5'2" / 1/2" | 10' / 1" |
| Elements | 2 (loops) | 30 | 42 | 1 (loop) | 6 | 10 | 18 | 22 | 35 |
| Wind Area | Min. | 1.0 Sq Ft. | 2.0 Sq Ft. | .015 Sq Ft. | .15 Sq Ft. | .30 Sq Ft. | .36 Sq Ft. | .3 Sq Ft. | .6 Sq Ft. |
| Wind Survival | 100 MPH | 75 MPH | 100 MPH | 150 MPH | 150 MPH | 100 MPH | 100 MPH | 100 MPH | 100 MPH |
| Weight/Ship | 2 lbs / UPS | 5 lbs / UPS | 8 lbs / UPS | 1 lbs / UPS | 3 lbs / UPS | 3 lbs / UPS | 4 lbs / UPS | 2 lbs / UPS | 4 lbs / UPS |



**M2 CAN PROVIDE YOU OR YOUR COMPANY WITH COMPLETE TURNKEY PACKAGES**

# Positioners & Accessories

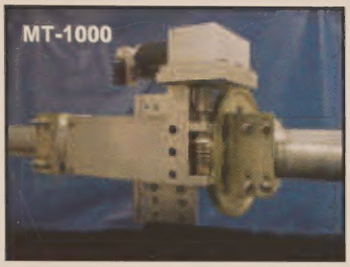
## OR2800P AZ POSITIONER

Powerful and reliable, the OR-2800P rotates multiple HF antennas or large UHF/VHF arrays with ease.

Features include:

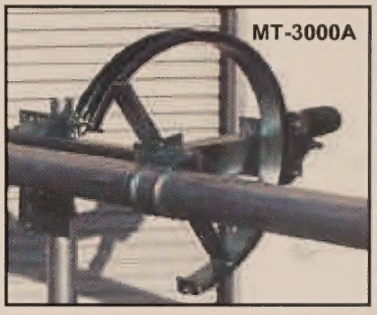
1. Precision worm-gear drive, not reversible by mast torque
2. Non-slip, ductile iron mast clamps
3. Large drive plate for masts up to 3"
4. Heat-treated steel gear train, hardened driveshaft
5. Prop-pitch style torque plate
6. Fits inside towers like Rohn 25 (top only) and 45, Triex LM-354, and U.S. Towers TX438
7. Motor-mounted digital pulse switch for accurate, closed loop control and heading Display.

| | |
|---|---|
| Wind Area Capacity | 35 sq. ft. |
| Starting Torque | 3500 in./lbs. |
| Rotating Torque | 2800 in./lbs. |
| Braking Torque | 17000 in./lbs. |
| Vertical Load Capacity | 1800 lbs. |
| Height of Rotator only | 9.75" |
| Total Height | 15.75" |
| Mast Size (O.D.) | 1.75-3" |
| Rotation Speed, max | 50-270 sec. |
| Rotation Range | 0-360° ±14° |
| Display / Travel Res | 0.1° / .5° |
| Input Voltage | 110 / 220 AC |
| Motor voltage | 28 - 42 VDC |
| Cable requirements | 2-#18, 2-#22 |
| Weight (rotator unit) | 42 lbs. |




### MT-1000 Elevation Unit

A rugged, mid-size elevation unit designed to handle the most common EME and satellite antenna systems. It has been produced with a powerful, zero backlash, double worm gear reduction and a full circumference ball bearing main boom rotation system. A full 360 degree rotation of the main crossboom makes array assembly and maintenance a breeze. The special mounting will handle 2"-3" crossboom sections. A powerful new permanent magnet dc servo motor produces 2 pulses per revolution, resulting in .2 degree accuracy. Even with all its power and ruggedness, the MT-1000 is light weight (24 lbs.) M2 has succeeded by filling the gap between the light duty Yaesu 500 and the heavy duty M2 MT-3000A. The same controller (RC2800P) offers 10 presets and RS232 computer control.




### MT-3000A Elevation Positioner

Elevating and maintaining 6 meter, VHF, and UHF arrays is simpler and easier with the powerful and reliable MT-3000A. Rotational capability is nearly 180 degrees, making it possible to completely invert an array for assembly, disassembly, and maintenance of upper bays. The MIG welded, gold-zinc plated, structural steel frame accepts crossbooms 3" to 5" (and tower sections, with optional adapter plates). The 24" drive-ring is chain driven by a 28 Volt, outdoor duty, permanent magnet 1255:1gearmotor. Final , reduction is 18,947:1 providing 4500 inch/lbs of torque. The control unit counts pulses from a magnetically actuated reed switch, mounted on the motor shaft and delivers a target accuracy 2/10 of a degree. An optional Limit Switch Kit, LSK-3000, offers adjustable, weather sealed, travel limit control. Programmable (with computer control) control units, similar to the RC2800P and RC2800PRK are available for the MT-3000A.

## CONTROL UNITS

**RC2800PDC Programmable Control Unit**

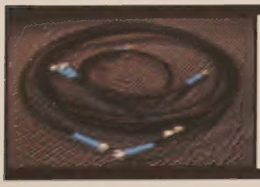
Manual features plus heading preset, 10 Programmable presets, programmed ramped start / stop, 1/2 degree target accuracy. RS232 port for complete computer control, tracking programs, etc.

**RC2800PP Programmable Control Unit**

The same features as above, but designed to work with a Prop-pitch motor. More power right out of the box . If you can't turn it with a rotator, turn it with our controller and a Prop-pitch.

## POWER DIVIDERS, CABLES AND HARDWARE

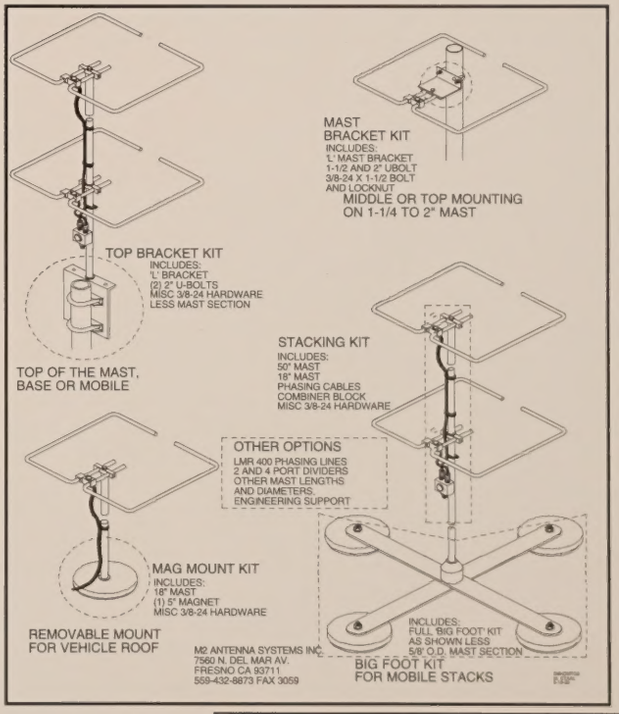
**Power Dividers-**We build 2 port and 4 port units for most frequencies. They are ideal for accurate impedance matching when feeding two or more antennas with 50 Ohm cable. All units are built with "N" female connectors threaded into the blocks and seated on O-ring seals.



**Phasing Cables-** Are electronically phased and matched at our factory to ensure accuracy. Reliability is increased with the use of LMR-400 coax and silver-plated connectors. Connectors are shrink-sleeved and crimp sealed to coax.

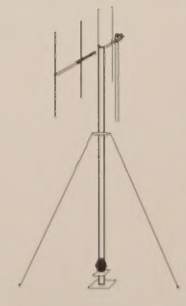
**Special Hardware-** U-bolts, plates and other special assorted hardware are now available. Special blank plates or standard plates are available for most of our VHF and UHF line of antennas. The **HD Fiberglass boom kit** is a strong non-conductive crossboom unit consisting of two 2" O.D. x 1/4" wall x 60" fiberglass tubes, a 1-1/2" solid aluminum center rod (for mounting through elevation units) and stainless steel hardware. Total length is 11 ft. Ideal for uplink/downlink circular polarized antennas or other applications where a non-interactive crossboom is required.

HD Fiberglass • • Boom Kit




## HO LOOP PARTS

The HO Loop was originally designed for mobile use only. But because of the great response to these awesome antennas, we have engineered several different ways that they can be mounted. We can provide mounting brackets, for fixed systems, magnetic mounts like the Big Foot, and Mag Kit and mast sections for mobile use. Whether your at home or on the move, the Ho Loop series will keep you on the air.



## THE FAST MAST

This simple, light weight, economical, portable antenna mast, can be extended to 20 feet in twenty minutes or less. It has a flexible mounting arrangement for the use of light duty rotator, for a rotatable mast. It's perfect for Mountain topping or field days, or remote contest sights. The Fast Mast' aluminum telescoping sections can be conveniently packaged for ease of transportation. You'll agree, that you can't go anywhere without it !



CALL US ANY TIME BETWEEN 8:00AM-4:00PM PST (559) 432-8873

# Specials & Customs - Factory Direct Items

## Standard Big Yagis... 80 Meters -10 Meters

| MODEL | 80M1 | 80M2 | 80M3 | 40M2L | 40M3L | 40M4L | 20M5 | 20M6 | 15M6 | 10M7 |
|---|---|---|---|---|---|---|---|---|---|---|
| Freq. MHz | 3.5-3.575 & 3.75-3.85 | 3.5-3.575 & 3.75-3.85 | 3.5-3.575 & 3.75-3.825 | 7.0-7-3 X 125 KHz | 7.0-7.3 X 200 KHz | 7.0-7.3 | 14.0-14.350 LF,CW,FF | 14.0-14.350 FULL BAND | 21.0-21.450 | 28.0-28.75 |
| Gain | -.022 dBd | 4.0 dBd | 5.3 dBd | 4.2 dBd | 5.6 dBd | 6.2 dBd | 8.1-8.5 dBd | 9.0 dBd | 9.4 dBd | 10.3 dBd |
| Front-Back | 0 dB | 12 dB | 20 dB | 12 dB | 20 dB | 22 dB | 24 dB | 25 dB | 25 dB | 25 dB |
| Beamwidth | E=75 | E=66 | E=65 | E=85 | E=62 | E=60 | E=50 | E=46 | E=48/H=53 | E=46/H=56 |
| VSWR | 1.2:1 Typ. | 1.2:1 Typ. | 1.2:1 Typ. | 1.2:1 Typ. | 1.2:1 Typ. | 1.2:1 Typ. | 1:1 RES | 1.2:1 Typ. | 1.2:1 Typ. | 1.4:1 Max. |
| Boom Length/Dia. | 85' / 3"-3/4" | 30' / 4" | 58' / 4-12"-4" | 20' / 3" | 30' / 3" | 42' / 3" | 44' / 3" | 60' / 3" | 44'10"/2.5-2" | 45'/2.5-2" |
| Element./T.Rad | 1 / 47' | 2 / 46' | 3 / 52' | 46' / 25' | 46' / 28' | 46' / 32' | 36' / 30' | 37' / 40' | 23'8" / 27' | 17'6" / 26' |
| Wind Area | 8 Sq Ft. | 19 Sq Ft. | 30.5 Sq Ft. | 6.5 Sq Ft. | 9.5 Sq Ft. | 13 Sq Ft. | 10.5 Sq Ft. | 14.8 Sq Ft. | 8.5 Sq Ft. | 7.4 Sq Ft. |
| Wind Survival | 100 MPH | 100 MPH | 100 MPH | 100 MPH | 100 MPH | 100 MPH | 100 MPH | 100 MPH | 100 MPH | 90 MPH |
| Weight/Ship | 85 lbs/TRK | 200 lbs/TRK | 350 lbs/TRK | 55 lbs/TRK | 90 lbs/TRK | 115 lbs/TRK | 105 lbs/TRK | 150 lbs/TRK | 50 lbs/TRK | 49 lbs/TRK |

## Survivors Series - 125MPH

Are High winds or ice keeping you from putting up a new antenna ? Or is keeping one up the problem ? The solution: M2's new line of ruggedized HF antennas, wind rated for 125 MPH ! We call them the **"Survivor Series"** - Nearly 20 models, including multi-band log-periodics and computer optimized monobanders like the 20M5 or the Full Size 40M3FS. All wind survival rated to 125 MPH, all designed to match your HF ambitions... and your weather ! The **"Survivor Series"** features reinforced booms and double wall, triple wall, or fiberglass rod reinforced element joints, all optimized for strength using the latest computer software. Hefty 1/2" thick aluminum element-mounting plates, stainless hardware, and high-power baluns insure top performance and survivability, regardless of the weather.

Why let extreme weather come between you and your HF ambitions ? The **"Survivor Series"** are here now ! We are M2-ready to get extreme on your tower and feedline !

## Custom Systems, H-Frames and Monster Antennas

We provide Custom Systems from basic boom-tilt fixtures to complete Tower Pedestal systems for satellite tracking. We work with customers like NASA, NOAA, SRI, Lockheed Martin and McDonald Douglas to provide unique solutions to suite their needs. Your special needs are what we consider a challenge to our production facility. We are geared to handle single piece, to high volume production. Whether you need a portable unit in the field or a complete tower pedestal capable of tracking LEO satellites to the International Space Station, we are confident that we can help you and your company.

## Company Profile, History and Goal

M2 is a woman owned, family run business with old time values. We enjoy our work and the time we spend designing and building products and finding solutions to your requirements. We are deep in both practical "Real World" experience as well as "Technical Expertise." We have been in the antenna business for 28 years with thousands of designs in our files. Our Goal is to produce the best, highest performance products possible within cost and time limits. We strive for your satisfaction in our product. We're really pleased when you are happy !

## M2 Website-Online Ordering

Have questions ? Visit our Website at **www.m2inc.com**

There you will find a complete listing of our Antennas, Positioners and Accessories. Not to mention **MPact News**, were you can get the latest and up to date info about M2 and new products. Check your knowledge with **MTech** technical notes from our resident antenna Guru Mike Staal-K6MYC. And for the curious minded, check out the **M2 Photo Gallery** were you can catch a glimpse of our latest commercial projects in house. The **M2 Bulletin Board** is available to those of you who are looking for specific items, or would just like to drop a good piece of info you feel would benefit other customers. Online ordering from **M2** is a snap, sign on... and check us out !

**M2 ANTENNA SYSTEMS, INC. 7560 N. DEL MAR AVE. FRESNO, CA 93711**
**(559) 432-8873 FAX (559) 432-3059 E-MAIL: wyatt@m2inc.com WEBSITE: www.m2inc.com**